

Claims [originally filed]

1. Method for the detection of pathologically-altered prion proteins (PrP^{Sc}) comprising the following steps:
 - 5 a) incubation of a specimen together with a solid carrier, wherein the solid carrier is coupled with a β -pleated-sheet-binding molecule;
 - b) removal of the constituents of the specimen not bound to the β -pleated-sheet-binding molecules; and
 - 10 c) detection of the constituents of the specimen bound to the β -pleated-sheet-binding molecules.
2. Method according to claim 1, wherein the specimen is subjected to a proteinase treatment before step a).
- 15 3. Method according to any one of the preceding claims, wherein the solid carrier is a spherical polymer, a plastic surface, silica-gel-coated glass slide, capillary or membrane.
- 20 4. Method according to any one of the preceding claims, wherein the β -pleated-sheet-binding molecules are oligopeptides with a length from 3 to 30 amino-acid residues or substituted heterocyclic aromatics.
- 25 5. Method according to claim 4, wherein the oligopeptides provide an amino-acid sequence according to SEQ ID NO: 1 to 10.
- 30 6. Method according to any one of the preceding claims, wherein the detection is performed by means of an immunological detection method.

7. Kit for the detection of pathologically-altered prion proteins (PrP^{Sc}), comprising at least one solid carrier coupled with β -pleated-sheet-binding molecules, washing solutions, elution solutions and a detection system.

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8. Kit according to claim 7, wherein the detection system is an immunological detection system and comprises a second solid carrier, which is coated with an anti-PrP-antibody, an enzyme-marked second antibody, substrate solutions and stop solutions.

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9. Kit according to claim 7 or 8, wherein one solid carrier is packed in a disposable column and the second solid carrier is a microtitre plate.

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